

UPDATE ON SUSTAINABLE COMMUNITIES STRATEGIES (SB 375)

September 22, 2011



California Environmental Protection Agency

 **Air Resources Board**

Purpose of Today's Presentation

- Brief the Board on SANDAG's draft SCS
- Describe staff's evaluation methodology and results
- Provide recommendations
- Report on SCS development in other regions

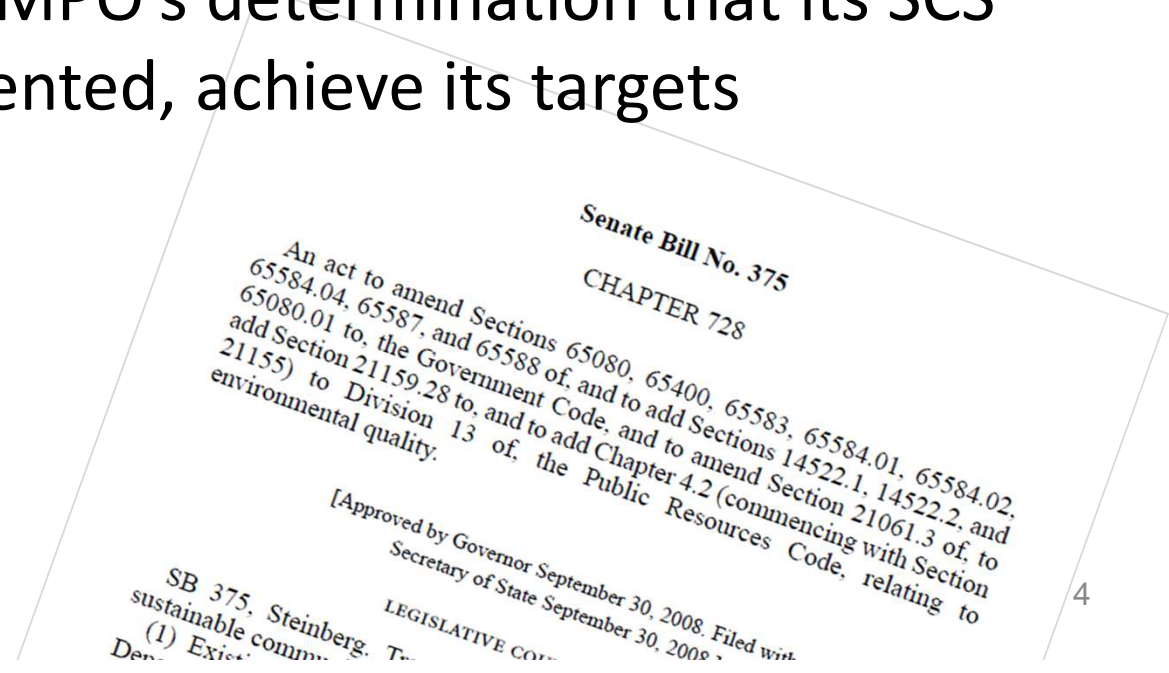


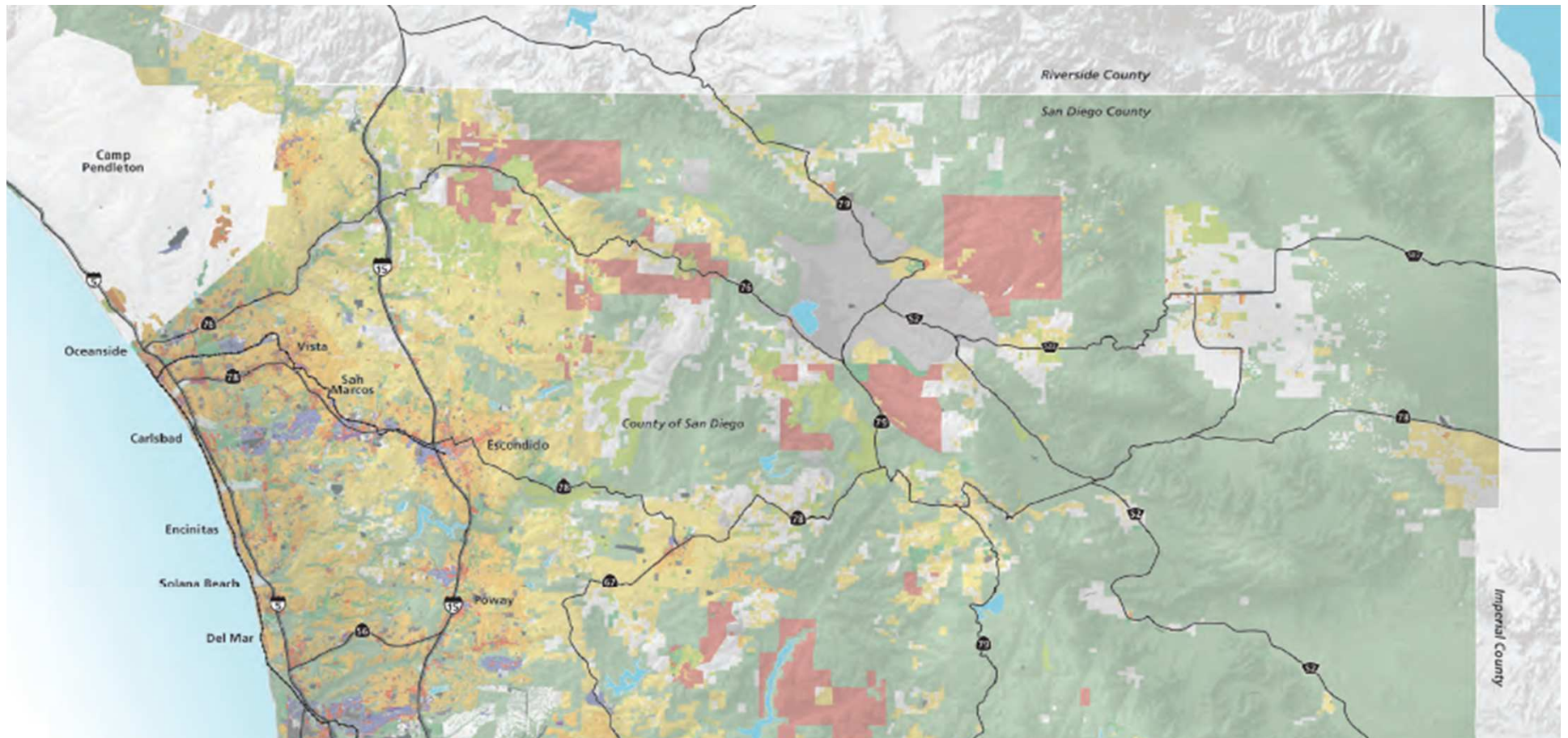
SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT OF 2008

Senate Bill 375

ARB's Role Under the Sustainable Communities Act of 2008

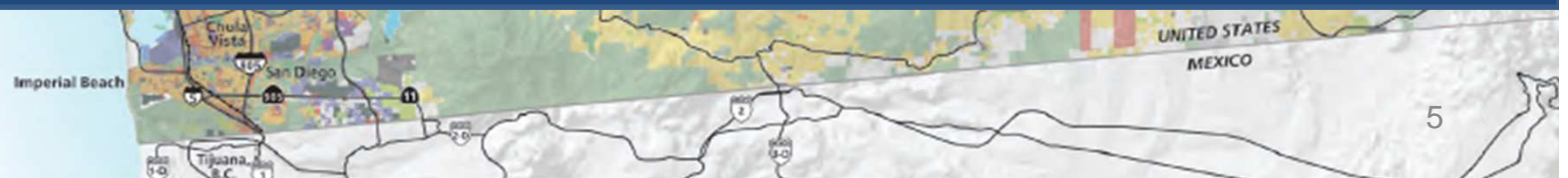
- ARB to set and periodically update GHG targets for 2020 and 2035
- Review MPO technical methodologies
- Accept/reject an MPO's determination that its SCS would, if implemented, achieve its targets





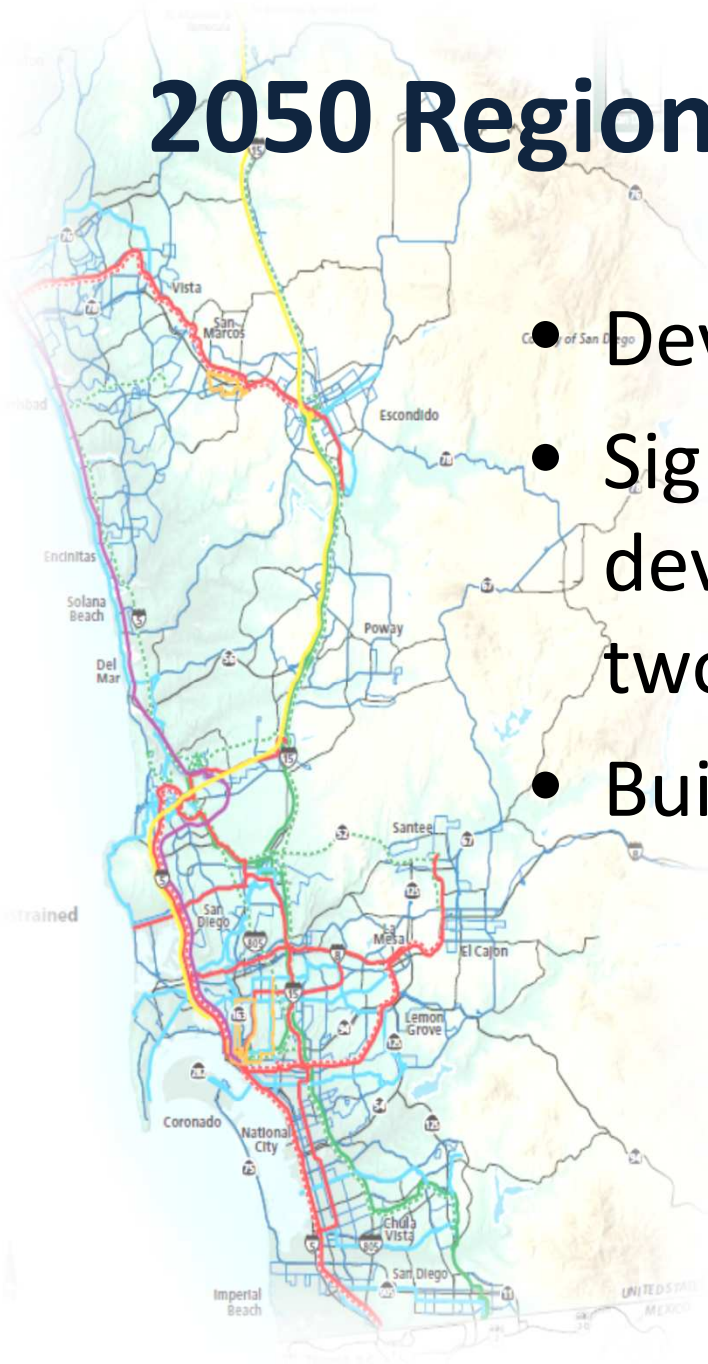
SANDAG'S RTP & SUSTAINABLE COMMUNITIES STRATEGY

SAN DIEGO ASSOCIATION OF GOVERNMENTS (SANDAG)



2050 Regional Transportation Plan

- Development began prior to targets
- Significant model and policy development work over the past two years
- Builds on over 30 years of planning



Foundational Plan Elements

- Protection of sensitive habitat
- Region2020 growth management strategy (2000)
- Regional Comprehensive Plan (2004)
- TransNet sales tax measure is an important source of funding
- About 45% of RTP expenditures for transit

Sustainable Communities Strategy: Land Use

- Strategy for implementing the smart growth vision in SANDAG's Regional Comprehensive Plan
- Reflects local land use plans and commitments to more compact transit oriented development
- General Plan Updates needed to implement the regional vision for land use



Sustainable Communities Strategy: Transportation System

- Transportation investments to support development in smart growth areas
- RTP includes transportation system management, demand management, and pricing policies
- Accommodates regional growth in 2020 and 2035



Draft SCS Meets Targets

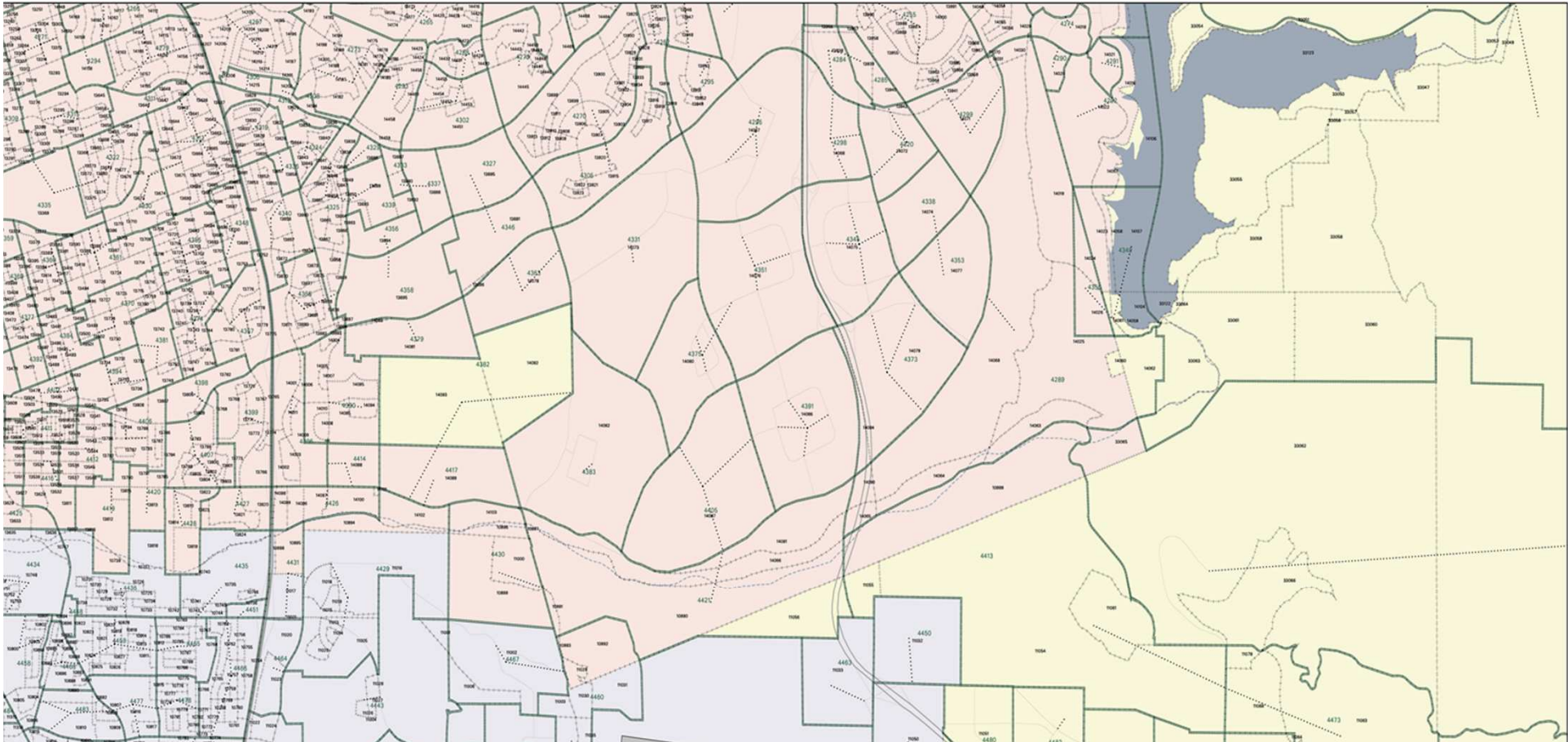
- Targets were set as a percent reduction in per capita CO₂ emissions from 2005 levels
- The draft SCS meets the targets but the post-2020 trend is unexpected
- ARB staff reviewed SANDAG's technical methodology and its application to the draft SCS
- ARB staff evaluation identifies improvements for future SCS development

Modeling Improvements and Regional Visioning

- SANDAG developing next generation travel models
- Regional Comprehensive Plan update begins in 2012 with next round of regional visioning
- Results of these efforts will set the stage for ARB's 2014 target update
- Additional land use scenario planning would identify further GHG emission reduction opportunities

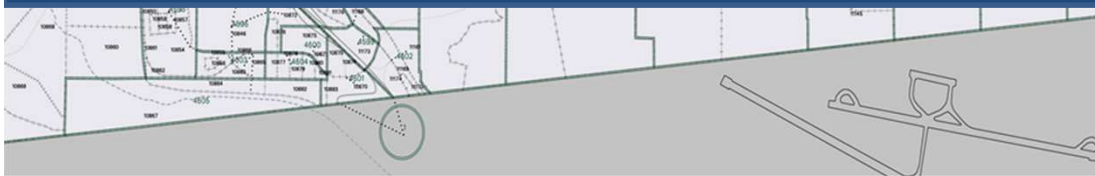
Performance Indicators

- Land use
 - Trends reflect increasing residential density and housing and employment near transit stations
- Transportation
 - VMT per capita trend tracks with GHG trend; differs from ARB staff's expectation of steady decline over time
 - Trends reflect increasing carpool, transit, and bike/walk mode shares
- Performance trends support GHG reductions to meet targets



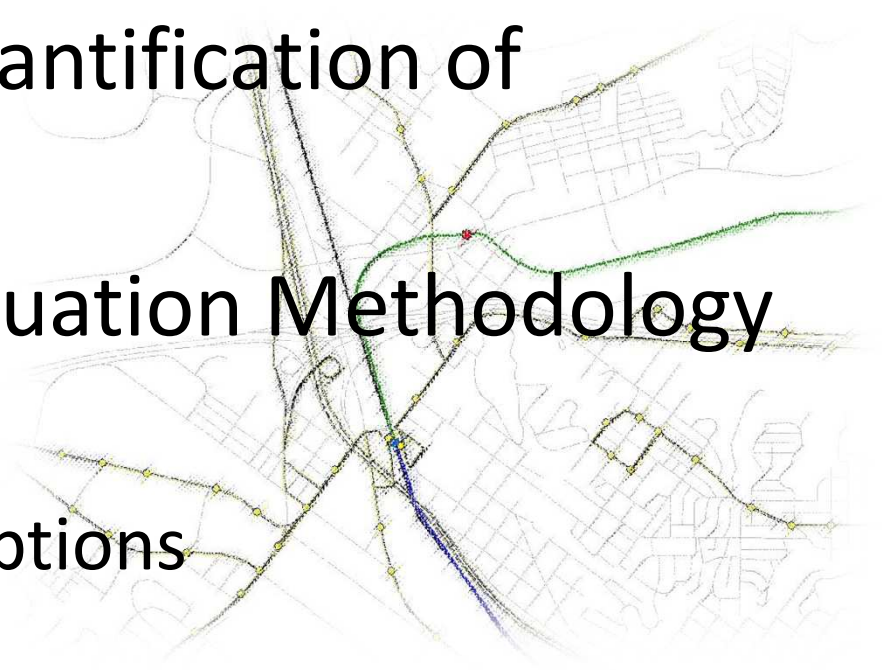
ARB'S TECHNICAL EVALUATION

SCS Quantification of Greenhouse Gas Reduction



ARB Staff Evaluation

- Reviewed SANDAG quantification of greenhouse gases
- Applied July 2011 Evaluation Methodology
 - Modeling tools
 - Data inputs and assumptions
 - Sensitivity tests
 - Performance indicators
- Evaluation process provides transparency



Modeling Approach

- SANDAG uses travel demand model and off-model tools
- Travel model responds reasonably to time, cost, and other factors affecting travel choices
- Improvements for future SCS development
 - Better integration of land use and travel models
 - Additional sensitivity runs (e.g. land use, HOV lanes)
 - Better accounting of how congestion relief influences travel and development (induced demand)

Model Inputs and Assumptions

- Staff reviewed model inputs that underlie most components of the model
 - Population, jobs, transportation system, travel cost
 - Inputs on how travel occurs and is influenced
- Inputs and assumptions used are reasonable for modeling of this SCS
- Improvements for future SCS development
 - Update demographic and transportation surveys
 - Increase sensitivity to changes in auto-ownership and household size
 - Update emissions factors for VMT activity

Emissions Trend Between 2020 and 2035

- ARB staff expected greater benefits in 2035 as a result of SCS strategies
- SANDAG's SCS shows a 14% emission reduction in 2020, and a 13% reduction in 2035
- SANDAG attributes this trend to a slow economic recovery and early investments in public transportation
- SANDAG should address this issue in its next plan update

Recommendations on SANDAG SCS

- If SANDAG approves the draft SCS, staff recommends ARB acceptance of SANDAG's GHG quantification
- If SANDAG modifies the draft SCS, ARB staff will review the impact on greenhouse gases
- Staff will inform the Board of the outcome, including any need to reconsider the greenhouse gas quantification

Recommendations for Next SCS

- Make improvements to travel modeling system to better reflect GHG reductions
- Make future travel modeling systems available to the public
- Work with local jurisdictions in the Regional Comprehensive Plan update to develop alternative land use planning scenarios



UPDATE ON SCS DEVELOPMENT AND MODEL IMPROVEMENTS

OTHER REGIONS

Southern California (SCAG)

- Compass Blueprint Program
- Model update and improvement underway
- Public engagement in scenario development
- New performance measures for land use and health
- Draft SCS in December 2011, Final adoption April 2012



Sacramento (SACOG)

- Blueprint and Rural Urban Connections Strategy
- HUD Grant for \$1.5 million to focus on transit priority areas
- Draft SCS in November/December 2011, Final adoption April 2012



Bay Area (MTC)

- Regional Smart Growth and Sustainable Development Plan (FOCUS)
- Transportation for Livable Communities
 - \$162 million for projects (1996-2009)
- Draft SCS in November/December 2012, Final adoption April 2013



San Joaquin Valley

- Eight county San Joaquin Valley Blueprint Planning Process complete
 - Web-based Blueprint Planner's Toolkit
 - Blueprint Awards
- Model Improvement Program
 - \$2.5 million from SGC for Valleywide effort
 - 8 MPO models will be standardized
 - Advanced modeling demonstration projects
- Focus is on 2012 target update



Other Regions

- MPOs continue to coordinate as they prepare for their SCS development
- Some have begun consulting with ARB on GHG quantification methodologies
- RTP updates ongoing (2012 to 2015)

Looking Forward

- Expect improved modeling capabilities for future SCS development
- Future SCS review will look for stronger evidence to demonstrate target will be met
- For future target setting, MPOs should provide additional scenario analysis and model performance results